THE JOURNAL
OF
ANIMAL ECOLOGY

EDITED FOR THE
BRITISH ECOLOGICAL SOCIETY
by
H. C. GILSON

VOLUME 22
1953

WITH THREE PLATES, AND NUMEROUS FIGURES
IN THE TEXT

CAMBRIDGE
AT THE UNIVERSITY PRESS
1953

Printed in Great Britain at the University Press, Cambridge
(Brooke Crutchley, University Printer)
and published by the Cambridge University Press

London: Bentley House, N.W. 1
American Branch: New York
Agents for Canada, India, and Pakistan: Macmillan

CONTENTS

ORIGINAL PAPERS PAGE

Allen, J. A. Observations on the epifauna of the deep-water muds of the Clyde Sea Area, with special reference to *Chlamys septemradiata* (Müller) . . 240

Barnes, H. Orientation and aggregation in *Balanus balanus* (L.) Da Costa . . 141

Barnes, H. The effect of lowered salinity on some barnacle nauplii . . . 328

Bassindale, R. *See* **Lilly, Sylvia J.** 87

Brian, M. V. Species frequencies in random samples from animal populations . 57

Crisp, D. J. Changes in the orientation of barnacles of certain species in relation to water currents 331

Crisp, D. J. and Knight-Jones, E. W. The mechanism of aggregation in barnacle populations. A note on a recent contribution by Dr H. Barnes . . . 360

Dane, D. Surrey, Miles, J. A. R. and Stoker, M. G. P. A disease of Manx shearwaters: further observations in the field 123

Delany, M. J. Studies on the microclimate of *Calluna* heathland . . . 227

Digby, P. S. B. Plankton production in Scoresby Sound, East Greenland . . 289

Ebling, F. J. *See* **Lilly, Sylvia J.** 87

Fant, R. J. A nest-recording device 323

Glasgow, J. P. The extermination of animal populations by artificial predation and the estimation of populations 32

Glasgow, J. P. and Wilson, F. A census of the tsetse-fly *Glossina pallidipes* Austen and of its host animals 47

Gray, Ernest A. The ecology of rotifers in Cambridgeshire 208

Harker, Janet E. An investigation of the distribution of the mayfly fauna of a Lancashire stream 1

Hartley, P. H. T. An ecological study of the feeding habits of the English titmice 261

Jackson, C. H. N. A mixed population of *Glossina morsitans* and *G. swynnertoni* 78

Kitching, J. A. *See* **Lilly, Sylvia J.** 87

Knight-Jones, E. W. *See* **Crisp, D. J.** 360

Lilly, Sylvia J., Sloane, J. F., Bassindale, R., Ebling, F. J. and Kitching, J. A. The ecology of the Lough Ine rapids with special reference to water currents. IV. The sedentary fauna of sublittoral boulders 87

Macfadyen, A. Notes on methods for the extraction of small soil arthropods . 65

Mann, K. H. The life history of *Erpobdella octoculata* (Linnaeus, 1758) . . 199

Miles, J. A. R. *See* **Dane, D. Surrey** 123

Moore, N. W. Population density in adult dragonflies (Odonata-Anisoptera) . 344

Oliff, W. D. The mortality, fecundity and intrinsic rate of natural increase of the multimammate mouse, *Rattus* (*Mastomys*) *natalensis* (Smith) in the laboratory 217

Robinson, I. On the fauna of a brown flux of an elm tree, *Ulmus procera* Salisb. 149

Shorten, Monica. Notes on the distribution of the grey squirrel (*Sciurus carolinensis*) and the red squirrel (*Sciurus vulgaris leucourus*) in England and Wales from 1945 to 1952 134

Sloane, J. F. *See* **Lilly, Sylvia J.** 87

Stoker, M. G. P. *See* **Dane, D. Surrey** 123

PAGE

Wallace, H. R. The ecology of the insect fauna of pine stumps 154

Williams, C. B. The relative abundance of different species in a wild animal population 14

Wilson, F. *See* **Glasgow, J. P.** 47

REVIEWS

The British Journal of Animal Behaviour. Vol. 1, nos. 1 and 2 (H. C. Gilson) . 363

Beirne, B. P. The origin and history of the British fauna (T. T. Macan) . . 172

Dakin, W. J. Australian seashores (T. A. Stephenson) 368

Harris, J. R. An angler's entomology (H. B. N. Hynes) 366

Lagler, Karl F. Freshwater fishery biology (E. D. Le Cren) 365

Linsdale, Jean M. and Tevis, Lloyd P., Jr. The dusky-footed wood rat. A record of observations made on the Hastings Natural History Reservation (Dennis Chitty) 175

Matthews, L. Harrison. British mammals (D. M. Steven) 367

Roe, Frank Gilbert. The North American buffalo: a critical study of the species in its wild state (Colin Matheson) 173

Rosevear, D. R. Checklist and atlas of Nigerian mammals with a foreword on vegetation (C. S. Elton) 368

Strenzke, K. Untersuchungen über die Tiergemeinschaften des Bodens: die Oribatiden und ihre Synusien in den Böden Norddeutschlands. *Zoologica*, **37**, (104), 1–174 (A. Macfadyen) 363

Tevis, Lloyd P., Jr. *See* **Linsdale, Jean M.** 175